

**Carlsbad Oaks North
Habitat Conservation Area
(S034)**

Annual Work Plan
October 2006 - September 2007

Prepared for:
U.S. Fish and Wildlife Service
California Department of Fish and Game
City of Carlsbad

Prepared by:



Jessica Vinje
The Center for Natural Lands Management
425 East Alvarado Street, Suite H
Fallbrook, CA 92028

December 15, 2006

TABLE OF CONTENTS

I.	Introduction and Summary	1
II.	Management Activities	2
	A. Capital Improvements	2
	B. Biological Surveys	2
	C. Habitat Restoration and Maintenance	3
	D. Public Services	5
	E. Reporting	5
	F. Office Maintenance	6
	G. Operations	6
III.	Workload and Budgets	6
	A. Supervision and Staffing	6
	B. Budgeting	6
IV.	References	6
V.	Appendices	7
	Appendix 1. 2006-7 Task Schedule	8
	Appendix 2. Annual Budget	9
	Appendix 3. Preserve Location Maps	12

I. INTRODUCTION AND SUMMARY

This work plan has been developed from the guidelines for goals and objectives set forth in the City of Carlsbad Preserve Management Plan (PMP) for the Carlsbad Oaks North Habitat Conservation Area (HCA) dated January 2005 (Tierra Data 2005). The PMP is currently being reviewed by the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG). This annual work plan also includes additional management activities that the Center for Natural Lands Management (CNLM) feels are appropriate to protect and maintain the natural resources at the HCA in perpetuity.

The HCA covers 326 acres, of which 108.4 acres are located within a conservation easement (CE) on lands owned by the County of San Diego. The CE was transferred to the CNLM in November of 2005. The CNLM received funds to manage the CE portion in May of 2006 at which time management activities commenced. Transfer of the remaining acreage (which will be owned in fee) and funding is expected by late 2006 to early 2007.

The purpose of this work plan is to identify the tasks and budget required to complete the management activities for the upcoming management year that will begin on October 1, 2006 and end on September 30, 2007. Unless otherwise stated, all tasks will be performed by CNLM's Area Manager, Markus Spiegelberg, CNLM's Preserve Manager, Jessica Vinje and CNLM's Assistant Preserve Manager, Patrick McConnell.

Summary of Tasks and Goals for the 2006-2007 Fiscal Year:

- Install signs and fence and maintain existing fences
- Conduct focused surveys for the coastal California gnatcatcher (*Polioptila californica californica*)
- Record observations of all sensitive wildlife species observed
- Map and survey for the San Diego thornmint (*Acanthomintha ilicifolia*), thread-leaved brodiaea (*Brodiaea filifolia*), summer holly (*Comarostaphylis diversifolia*), and Nuttall's scrub oak (*Quercus dumosa*)
- Track wildlife movement using wildlife cameras
- Monitor and control nonnative, exotic plants in coordination with Techbilt, the developer of the Carlsbad Oaks North business park
- Conduct weekly patrol visits
- Develop a Public Outreach brochure that outlines the duties of the CNLM at the HCA and notifies neighbors of the changes of ownership
- Report and describe data collected and management actions taken on the HCA to the wildlife agencies and the City of Carlsbad
- Provide an accounting of funds to be spent in the fiscal year

Appendix 1 (*2006-2007 Task Schedule*) identifies the approximate schedule of tasks for the upcoming fiscal year. Appendix 2 (*Annual Budget 2006-2007*) provides a financial summary for both staff time and costs for the year. The location of the HCA is shown in Appendix 3.

II. MANAGEMENT ACTIVITIES

The following sections identify and describe the activities to be performed during the 2006-2007 management year. Based upon the Property Analysis Record (PAR) developed by CNLM to outline long-term management tasks and costs, management activities for the HCA are organized into seven categories: Capital Improvements, Biological Surveys, Habitat Restoration, Public Services, Reporting, Office Maintenance, and Operations. Each of these categories will be discussed below.

A. CAPITAL IMPROVEMENTS

The installation of signs, fences, and a gate will occur during this fiscal year:

1. Signing CNLM signs will be posted at all of the major access points and along most of the perimeter to the HCA and a few other notable locations. These signs will explain that the HCA is off limits to the public until construction and conservation activities are completed.

2. Fencing and Gates CNLM's client (Techbilt Corporation) for this project will install fencing along the western and northern boundaries of the CE and along the eastern boundary of the fee portion of the HCA. A chain link gate will also be installed at the eastern end of the HCA. CNLM will maintain these fences and gates.

B. BIOLOGICAL SURVEYS

Biological monitoring activities at the HCA will follow actions listed in the PMP. CNLM has modified monitoring tasks outlined in the PMP to adjust the task time lines and some of the tasks which it finds to be unnecessary at this time. Below is a description of the tasks that will be accomplished during the 2006-2007 fiscal year. In addition, Table 1 outlines all tasks that will be completed at the HCA and an associated time line for the next 6 years.

Monitoring during the next year includes focused surveys for coastal California gnatcatcher and sensitive plants. Other sensitive plant and animal species will be mapped and counted when noted. All data will be entered or stored in a Geographic Information System (GIS) database. A brief description of monitoring activities outlined by taxa is provided below:

- 1. Amphibian and Reptile Monitoring** Sensitive amphibians or reptiles, such as orange-throated whiptail (*Cnemidophorus hyperythrus*) and San Diego horned lizard (*Phrynosoma coronatum blainville*) will be mapped when they are observed.
- 2. Small and Large Mammal Monitoring** Sensitive mammals, such as southern muledeer (*Odocoileus hemionus*) and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) will be mapped when they are observed. In addition,

wildlife tracking cameras will be installed in several locations to determine which species use the HCA and where corridors for these species exist.

3. **California Gnatcatcher & Avifauna Monitoring** CNLM will conduct focused surveys for coastal California gnatcatchers during the spring months and note other sensitive bird species during these surveys.
4. **Sensitive Plant Species** Surveys will be conducted for thread-leaved brodiaea (TLB) and San Diego thornmint (SDTM). In addition, other sensitive plants, that were not identified during the previous year's surveys, such as Palmer's grappling hook (*Harpagonella palmeri*) and small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*) will be mapped and counted as they were located during spring 2006 by CNLM. The general distribution of summer holly and Nuttall's scrub oak will be mapped, their population size estimated and the overall condition of these two species assessed.

CNLM will develop a monitoring program to assess the habitat quality in the SDTM and TLB occupied habitat. This will likely include vegetation transects that cross occupied habitat. The cover and/or frequency of native and non-native plants species will be recorded along these transects.

CNLM is currently assisting the USFWS with their preparation of a recovery and management plan for SDTM. CNLM will continue to work with USFWS on this effort in the upcoming fiscal year.

C. HABITAT RESTORATION AND MAINTENANCE

1. Nonnative Plants Most of the HCA's habitat is very good quality, with little disturbance from nonnative species. There are a few nonnative exotic plants scattered throughout the HCA. As per the wildlife agency permits for the Carlsbad Oaks North development and per the agreements between Techbilt and the CNLM, Techbilt is responsible for the removal and maintenance of all "zero" tolerance nonnative plant species within the approved habitat restoration projects (5-year maintenance period) and the rest of the HCA (3-year maintenance period). After 3 years, CNLM will take responsibility of weed removal in the HCA. CNLM will coordinate removal of nonnative exotics in the HCA with Techbilt when they are located.

2. Illegal Public Use The HCA has a history of illegal (trespass) use prior to construction activities and the preservation of this area. Use included mountain bikes, motorcycles, hiking, and horse back riding. Construction activities resulted in the removal of illegal trails and connectivity to other trails and adjacent areas. As a result, members of the public illegally entered the property, mostly on the CE portion, and created new mountain biking trails prior to dedication to CNLM. These activities are illegal and unwanted. Techbilt agreed to assist the

Table 1
Schedule of Biological Monitoring Tasks

	Fiscal Year					
Monitoring task	2006/2007	2007/2008	2009/2010	2010/2011	2011/2012	2012/2013
Focused sensitive reptile surveys ¹		X			X	
Coastal California gnatcatcher surveys (including observations of other sensitive avian and mammalian species)	X	X	X	TBD	TBD	TBD
Avifauna point counts ²		TBD	TBD	TBD	TBD	TBD
Wildlife tracking	X	X	X	X	X	
Coastal sage scrub vegetation data collection ³		X			X	
Thread-leaved brodiaea and San Diego thornmint surveys (including assessment of habitat)	X	X	X	X	X	X
Summer holly and Nuttall's scrub oak ⁴	X			X		
Other sensitive plant surveys		X			X	

1. Focused reptile surveys will occur in lieu of installing and monitoring pitfall arrays as outlined in the PMP. Pitfall arrays will not be installed since the HCA is heavily used by the public. In the experience of CNLM, these arrays would be vandalized.

2. The management plan specifies that avian point counts should occur, but does not provide a time line. The actual time line for annual point counts will be determined in the future.

3. The PMP indicates that coastal sage scrub quantitative monitoring will occur, but does not provide a time line. CNLM will initiate coastal sage scrub quantitative monitoring during the 2007-2008 fiscal year. Coastal sage scrub quantitative monitoring will occur every 3 years.

4. CNLM is choosing to map the distribution of these two plants and assess their condition every 3 years, as opposed to annually as indicated by the management plan.

CNLM in removing the illegal mountain biking “trails” (and associated bridges, wood structures etc) and construct fencing to prevent future use. These removal activities are anticipated for November of 2006. After Techbilt and CNLM remove the bike tracks, CNLM will be taking out the rest of these trails and planting native cacti and succulents on the trails to stop erosion, assist with native plant establishment, and to deter further public use of the illegal trails.

3. Restoration Other restoration activities include the coastal sage scrub restoration and wetland restoration required by wildlife agencies permits which are being undertaken by Techbilt through RECON Environmental, Inc and Helix Environmental, Inc. CNLM will monitor these restoration activities.

D. PUBLIC SERVICES

Activities centering around public services include the patrolling of the HCA, consulting with neighbors about perimeter landscaping and responding to emergencies. However, other opportunities for public service will undoubtedly be forthcoming during the year with local groups and individuals interested in volunteering labor for HCA projects, and class field trips from local schools. Whenever possible preserve management will try to accommodate these activities.

1. Patrols Patrols will be performed approximately four times per month, and during biological surveys or other HCA activities. The main patrol activities will be to ensure that the public does not use any of the illegal trails located on the HCA until all construction is completed. Routine fence and sign repair and replacement will be main tasks during the upcoming fiscal year. Observations of sensitive animals, new human impacts, new weed infestations, and trash will be gathered during patrols as well.

2. Public Outreach CNLM will prepare a brief write up explaining the duties of the CNLM at the HCA and provide this write-up to adjacent Home and Commercial Owners Associations and local businesses.

3. Emergency Response Staff time has been allocated from the current budget for response to emergencies on the HCA. Such emergencies could include response to wildfires, wildlife problems reported by neighbors and illegal trespass.

E. REPORTING

Reporting requirements include the management of the HCA's database/GIS system, the photo-documentation stations, and the production of various status reports to the City of Carlsbad USFWS, CDFG and CNLM administration.

1. Database/GIS Management Data derived from routine patrols and photo-documentation will be entered into and maintained in the HCA's existing database/GIS system. Additional databases will be established for the various biotic monitoring programs including the production of historical and current vegetation maps. Efforts will be made to coordinate and standardize database fields and parameters with other reserves. This task will be accomplished by a CNLM subcontractor, Cadre Environmental. This company will standardize all of the HCA GIS files/databases with all of the other CNLM GIS files/databases.

2. Photo-documentation Stations Permanent photo-documentation stations were established in 2006 and photographs were taken, labelled and stored. These photographs will be updated in 2009.

3. Reports

a. Year-End/Agency Reports A year-end report will be prepared by the preserve

manager by early November 2007 detailing the results of the year's management activities. This report will include recommendations for the continuation of various activities for the following fiscal year and will be submitted to the City of Carlsbad, USFWS and CDFG as required under permit reporting conditions.

- b. Annual Work Plan** The annual work plan for the 2007-2008 fiscal year will be formulated by the end of the 2006-2007 fiscal year and will be based upon experiences during previous years' operations. This work plan will be submitted to the City of Carlsbad, USFWS and CDFG.

F. OFFICE MAINTENANCE

Preserve management will maintain offices in an organized manner to facilitate maximum efficiency. This section of the budget includes outlays for general office work, utilities, and telephones, among other items/tasks.

G. OPERATIONS

Operations include the training and professional growth of CNLM personnel, and inspection of the by CNLM administration. Funds have been allocated in the current budget for the Preserve Managers to attend classes or seminars during the 2006-2007 year. Also included within this category of activity is the conduction of employee reviews.

III. WORKLOAD AND BUDGETS

A. SUPERVISION & STAFFING

The Area Manger will be supervised by CNLM's Director of Operations, Michael Stroud and CNLM's Science Director, Deborah Rogers. Tasks and hours will be coordinated by the Area Manager and approved by Mr. Stroud and Ms. Rogers. The Area Manager, Markus Spiegelberg will supervise the Preserve Manager, Jessica Vinje and the Assistant Preserve Manager, Patrick McConnell. In addition, staff time has been allocated for a Ms. Rogers to assist with document reviewing and scientific research conducted on CNLM preserves.

B. BUDGETING

A budget of \$67, 203 has been allocated for this fiscal year and is included here as Appendix 2. Every effort will be made by Preserve Management to allocate time and expenses according to this estimated budget.

IV. REFERENCES

Tierra Data 2005. City of Carlsbad Preserve Management Plan for the Carlsbad Oaks North Habitat Conservation Area dated January 2005.

V. APPENDICES

Appendix 1

2006-2007 Task Schedule

Task	October- December 2006	January-March 2007	April to June 2007	July to September 2007
Coordinate Nonnative Plant Removal	X	X	X	X
Coastal California Gnatcatcher Surveys		X	X	
Sensitive Plant Surveys (and habitat assessment)		X	X	X
Wildlife Movement	X		X	
GIS/Database			X	
Fencing/Signage	X	X	X	X
Patrolling	X	X	X	X
Reports				X
Public Outreach	X	X	X	

Appendix 2

Annual Budget 2006-2007

Section 8 - Initial & Capital Tasks and Costs

Property Title: Carlsbad Oaks North

Dataset: CA005

PAR ID: S034FIN

12/15/2006

Budget: Annual Budget 2006-7

Task list	Specificaton	Unit	Number of Units	Cost / Unit	Annual Cost	Times Years	Total Cost
ACQUISITION							
Inspection	Property inspection AM	L. Hours	8.00	37.88	303.04	1.0	303.04
Sub-Total							303.04
SITE CONSTRUCTION/MAINT.							
Fence - Installed	Maintenance APM	L. Hours	40.00	23.59	943.60	1.0	943.60
Fence - Installed	All other fence maintenance	Item	1.00	500.00	500.00	1.0	500.00
Gate	Gate Maintenance	Item	1.00	500.00	500.00	1.0	500.00
Lock	Padlock	Item	4.00	15.00	60.00	1.0	60.00
Sub-Total							2,003.60
BIOTIC SURVEYS							
Project Management	Supervise/coordinate AM	L. Hours	8.00	37.88	303.04	1.0	303.04
Project Management	Supervise/coordinate PM	L. Hours	8.00	30.62	244.96	1.0	244.96
Project Management	Supervise/coordinate APM	L. Hours	24.00	23.59	566.16	1.0	566.16
Plant Ecologist	Sens Species Veg anal PM	L. Hours	32.00	30.62	979.84	1.0	979.84
Plant Ecologist	Sens Species Veg anal APM	L. Hours	24.00	23.59	566.16	1.0	566.16
Ornithologist	CAGN and Sens Species PM	L. Hours	30.00	30.62	918.60	1.0	918.60
Science Director	Planning and Review	L. Hours	30.00	45.00	1,350.00	1.0	1,350.00
Sub-Total							4,928.76
HABITAT MAINTENANCE							
Exotic Plant Control	Control and coord APM	L. Hours	40.00	23.59	943.60	1.0	943.60
Exotic Plant Control	Control and coord PM	L. Hours	16.00	30.62	489.92	1.0	489.92
Exotic Plant Control	Herbicide 41% con.	2 Gal.	2.00	159.90	319.80	1.0	319.80
Sub-Total							1,753.32
PUBLIC SERVICES							
Access Control	Patrol,mend fence,trash APM	L. Hours	200.00	23.49	4,698.00	1.0	4,698.00
Sign, Aluminum	Signs and Post	Item	35.00	22.00	770.00	1.0	770.00
Community Outreach	Outreach, APM	L. Hours	16.00	23.49	375.84	1.0	375.84
Sub-Total							5,843.84
REPORTING							
Database Management	Data Input APM	L. Hours	8.00	30.62	244.96	1.0	244.96
GIS/CAD Management	Data Management AM	L. Hours	8.00	37.88	303.04	1.0	303.04
GIS/CAD Management	Data Management PM	L. Hours	8.00	30.62	244.96	1.0	244.96
GIS/CAD Management	Data Management APM	L. Hours	8.00	23.59	188.72	1.0	188.72
GIS/CAD Management	Cadre	Item	1.00	624.00	624.00	1.0	624.00
Annual Work Plan	Plan and PAR Budget APM	L. Hours	8.00	23.59	188.72	1.0	188.72
Annual Work Plan	Plan and PAR Budget AM	L. Hours	8.00	37.88	303.04	1.0	303.04
Agency Report	Annual Report AM	L. Hours	16.00	37.88	606.08	1.0	606.08
Agency Report	Annual Report APM	L. Hours	20.00	23.59	471.80	1.0	471.80
Management Plan	Initial Report AM	L. Hours	8.00	37.88	303.04	1.0	303.04

Task list	Specificaton	Unit	Number of Units	Cost / Unit	Annual Cost	Times Years	Total Cost
Sub-Total							3,478.36
OFFICE MAINTENANCE							
Administrative	Operations AM	L. Hours	12.00	37.88	454.56	1.0	454.56
Administrative	Operations PM	L. Hours	12.00	30.62	367.44	1.0	367.44
Administrative	Operations APM	L. Hours	24.00	23.59	566.16	1.0	566.16
Preserve Office	Rent	Year	0.16	5,580.00	892.80	1.0	892.80
Telephone Charges, Annual	Phone Charges	Year	0.16	3,960.00	633.60	1.0	633.60
Taxes and Fees	1 year	Year	1.00	2,500.00	2,500.00	1.0	2,500.00
Office Supplies, Year	Office Supplies	Year	0.16	2,500.00	400.00	1.0	400.00
Computer, PC & Monitor	Computer, and peripheral	Item	0.50	2,000.00	1,000.00	1.0	1,000.00
Laser Printer	Printer	Item	0.50	639.60	319.80	1.0	319.80
Sub-Total							7,134.36
FIELD EQUIPMENT							
Vehicle	Small pickup	Item	0.30	23,452.00	7,035.60	1.0	7,035.60
Vehicle	Mileage	Mile	1,700.00	1.18	2,006.00	1.0	2,006.00
Camera 35mm/lens	Digital	Item	1.00	554.32	554.32	1.0	554.32
Chemical Sprayer	5 Gallon, Classic	Item	1.00	114.06	114.06	1.0	114.06
Other	misc tools	Item	1.00	159.90	159.90	1.0	159.90
Sub-Total							9,869.88
OPERATIONS							
Audit	CPA Audit	Item	1.00	43.86	43.86	1.0	43.86
Insurance	General	Item	1.00	340.11	340.11	1.0	340.11
Legal/Emerg. Fund	Establish fund	1% endow.	1.00	6,000.00	6,000.00	1.0	6,000.00
Research/Development Fund	Establish Fund	.5% endow.	0.50	6,000.00	3,000.00	1.0	3,000.00
Supervisor Site Visit	Site visits and Legal	L. Hours	12.00	45.00	540.00	1.0	540.00
Employee Training	Retreat Expense	Item	0.16	1,373.00	219.68	1.0	219.68
Conferences	Conferences	Day	0.16	900.00	144.00	1.0	144.00
Other	Sick Holiday, retreat AM	L. Hours	51.00	37.88	1,931.88	1.0	1,931.88
Other	Sick Holiday, retreat APM	L. Hours	32.00	30.62	979.84	1.0	979.84
Other	Sick Holiday, retreat PM	L. Hours	32.00	23.59	754.88	1.0	754.88
Sub-Total							13,954.25
CONTINGENCY & ADMINISTRATION							
Contingency							4,926.94
Administration							13,007.12
Sub-Total							17,934.06
Total							67,203.47

Appendix 3

HCA Location Map

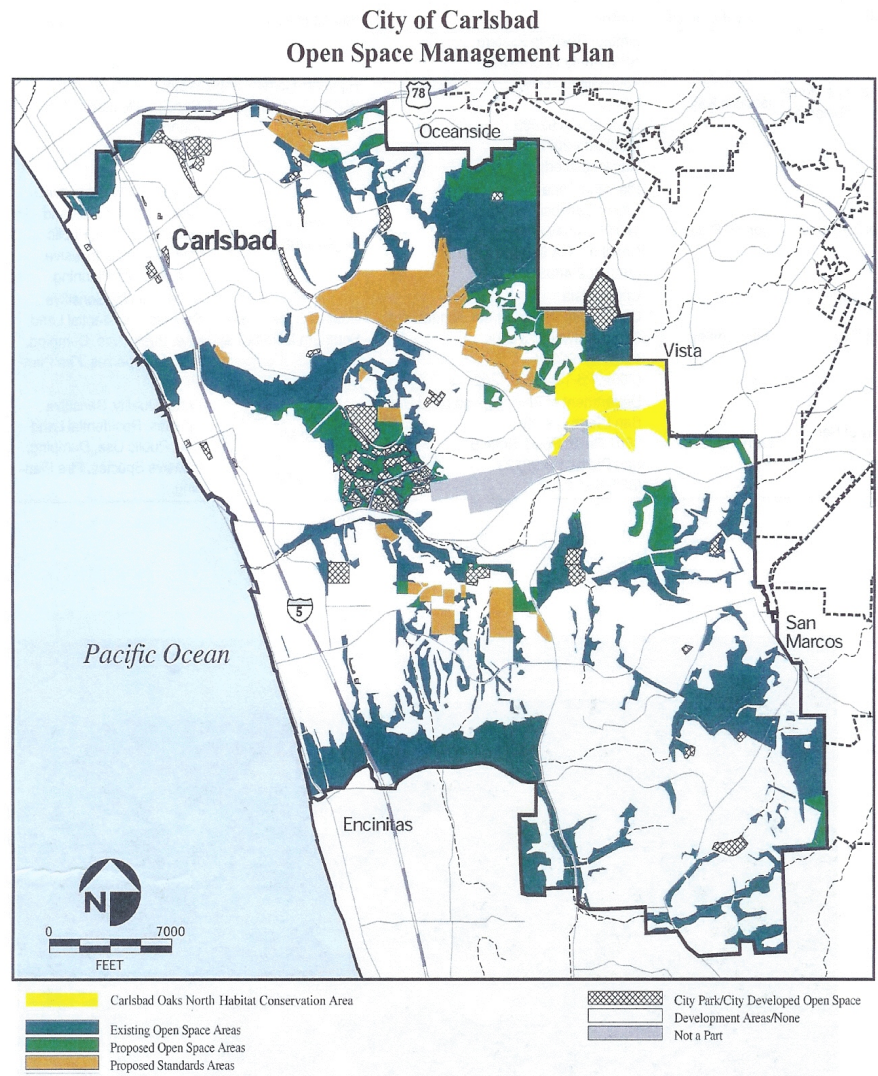


Figure 1 The Carlsbad Oaks North HCA as a component of the City of Carlsbad's open space Habitat Conservation Plan. Map adapted from TAIC (2004).

Parcels Contributing to the Carlsbad Oaks North Habitat Conservation Area

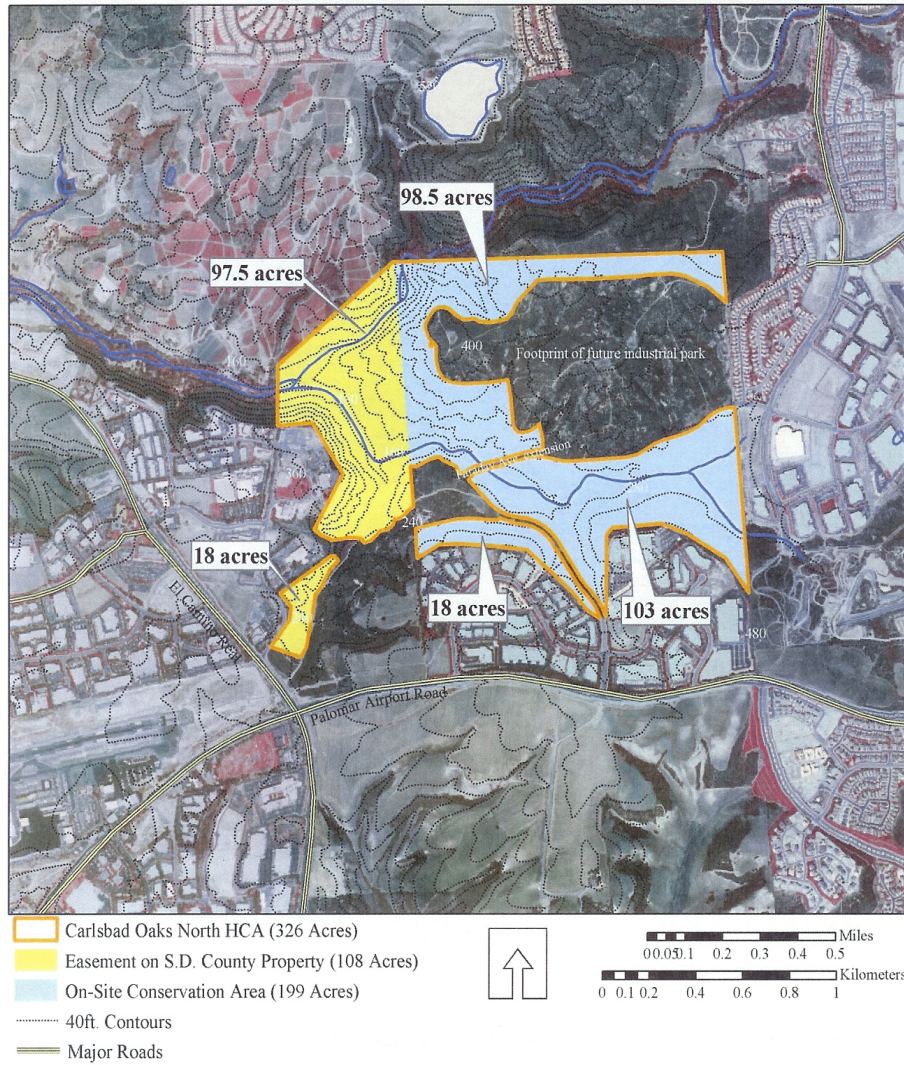


Figure 2. Parcels contributing to Carlsbad Oaks North Habitat Conservation Area.